

**Clean Copy of Claims**

**18. (Currently amended) A method for inhibiting or reversing metastasis in a M+ class tumor, wherein said tumor is capable of existing in M+ and MO classes, comprising the step of contacting said with an effective amount and for an effective period of time with an inhibitor of the upregulation (overexpression) of a gene identified as being associated with said M+ class, said gene identification being made by a genetic method comprising the steps of:**

**A. Identifying by expression-profiling of tumor sample cohorts of said M+ and MO classes of said tumor, coupled with permutational statistical analysis, to generate a candidate gene list, those genes whose expression differ statistically between said classes of said tumor and that are upregulated in the M+ class and downregulated in the MO class;**

**B. producing a class-predictive algorithm based upon said predictive genes with a permutational *P* value of <0.05; and,**

**C. applying said algorithm to a candidate tumor to produce a Predictive Strength value that will assign the M+ or MO class to said tumor, wherein said algorithm comprises two primary equations:**

$$(1) \ v_i = [ x_i - ( \mu_{MO} + \mu_{M+} ) / 2 ]$$

wherein  $v_i$  is the selective vote,  $x_i$  is the expression level in the tumor sample, and  $\mu_{MO}$  and  $\mu_{M+}$  are the metastatic classes of reference samples, and wherein said votes are summed in order to obtain total votes for the non-metastatic ( $V_{MO}$ ) and metastatic ( $V_{M+}$ ) classes; and,

$$(2) \text{ Prediction Strength} = [ (V_{MO} - V_{M+}) / (V_{MO} + V_{M+}) ]$$

wherein Prediction Strength values range between 0 and 1.

**19.(Currently amended) The method according to claim 26, wherein said inhibitor is a neutralizing antibody directed against the protein encoded by said upregulated M+ gene.**

**20.(Currently amended) The method according to claim 26, wherein said inhibitor is a chemical inhibitor.**

**21. (Original) The method according to claim 20, wherein said inhibitor is directed against a member of the the metastatic overexpressed gene group consisting of the signal transduction inhibitor STI-571, the RAS inhibitor R115777, the MAP2K1/MAP2K2 protein kinase inhibitor U0126, the specific signal transduction inhibitor of PDGFRA STI-571, the phosphoinositide 3-kinase inhibitor wortannin, the VEGF inhibitor NM3, the MAP kinase inhibitor CC1-779, and the glutathione S-**

**transferase inhibitor TLK 886 .**

**22. (Original) The method according to claim 21, wherein said inhibitor is the RAS inhibitor R115777.**

**23. (Original) The method according to claim 21, wherein said inhibitor is SCH88336.**

**24. (Original) The method according to claim 21, wherein said inhibitor is U0126.**

**25. (Original) The method according to claim 21, wherein said inhibitor is STI-571.**

**26 (New) The method of claim 18, wherein said upregulated tumor gene is the gene for PDGFRA or a gene downstream from said PDGFRA gene.**

**27 (New) The method of claim 26, wherein said downstream gene is selected from the group consisting of RAS, MAP2K1/MAP2K2, phosphoinositide-3-kinase, VEGF, MAP kinase, and glutathione-S-transferase.**